Vital Signs

by

MAJ Sharon E. Healy

TLO

- **Conditions:** Given a simulated patient and the necessary supplies and equipment.
- **Action:** Measure a patient's temperature, pulse, respiration, and blood pressure.
- **Standards:** IAW established grading criteria

ELO

- ELO A Given a list of terms related to vital signs and a list of definitions match each term with its definition.
- ELO B Given the steps to measure a patient’s temperature identify the correct order of steps to measure a patient’s temperature.

ELO

- **ELO C Given the name of the artery and its anatomical location to take a patient's pulse, identify anatomical locations to take a patient's pulse.**

- **ELO D Given the appropriate steps to measure a patient's respiration, identify the correct order of steps to measure a patient's respiration.**

ELO

- ELO E Given the steps to measure a patient's blood pressure, identify the correct order of steps to measure a patient's blood pressure.

- ELO F Given the appropriate equipment perform vital signs measurements.

Check your knowledge

- ✓ Vital Signs Quiz
- ✓ Crossword Puzzle

Terms and Definitions

Axilla

Febrile

Hypothermia

Hyperthermia

Pyrexia

Core body temperature

Palpate

Auscultate

Pulse

Arrhythmia

Bradycardia

Tachycardia

Terms and Definitions

Blood pressure

Systolic pressure

Diastolic pressure

Stethoscope

Sphygmomanometer

Respiration

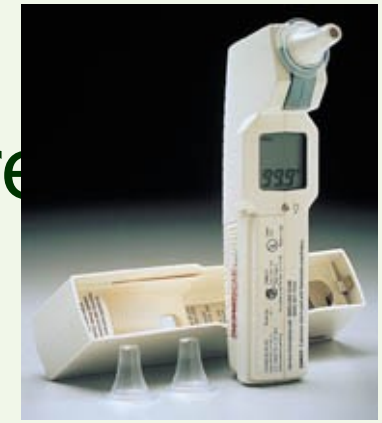
Apnea

Temperature

- Triggers to temperature changes.
- Routes to obtain temperature.
- Equipment needed
  - a. Thermometer
  - b. Watch with second hand

Temperature Range

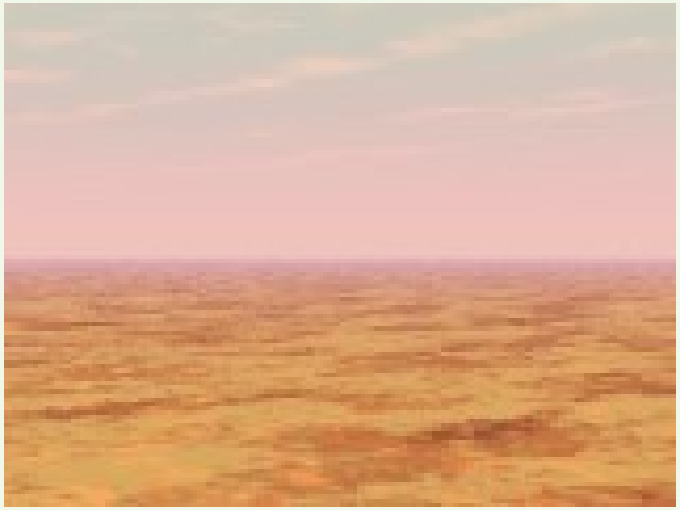
- Oral (mouth) 98.6ºF (37ºC)
- Rectal (anus) 99.6º F (37.5º C)
- Axillary (armpit) 97.6º-98º F(36.4-36.7º C)
- Tympanic (auditory canal) Convert to oral rectal or core equivalents



Pulse Rate

- Locations of pulse’s

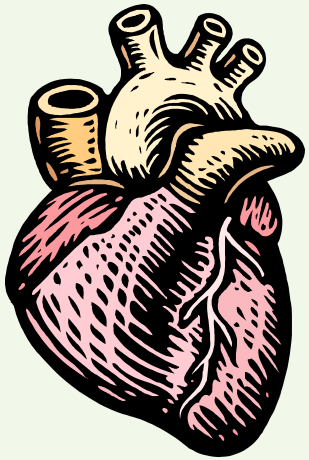
http://sln.fi.edu/biosci/monitor/vitals.html



http://sln.fi.edu/biosci/monitor/vitals.htm

Pulse Rate

- Characteristic
  - Rate - beats per minute
  - Rhythm – time between beats
  - Strength – forcefulness
- Equipment needs



http://www.medlib.com/spi/coolstuff2.h

Normal Pulse Rates

- Men – 60–70 beats per minute
- Women – 72–80 beats per minute
- Children over age seven –72-90 beats per minute
- Infants (one-year and under) 120-140 beats per minute.

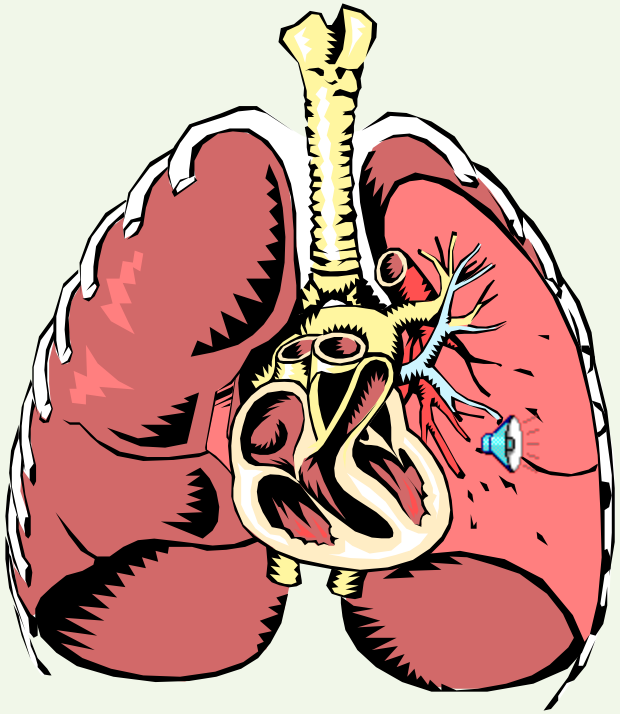
Respiration Rate

- Characteristics
  - Rate
  - Rhythm
  - Depth
- Equipment needs

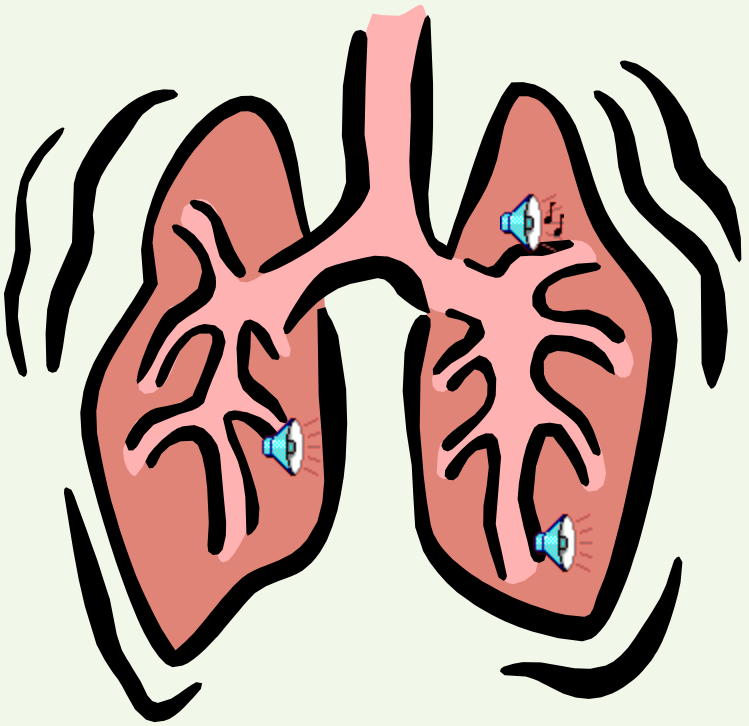
Normal Respiration Rates

- Adult 12-20 respiration per minute.
- Child (1 to 12) 15-30 respiration per minute.
- Infant (birth to 1 year) 25-50 respiration per minute.

Respirations



Normal Sound



Abnormal Sounds

Blood Pressure

- Description of heart activitv
  - Systolic
  - Diastolic.

- Equipment
  - Stethoscope.
  - Blood pressure cuff (sphygmomanometer).
  - Alcohol swab

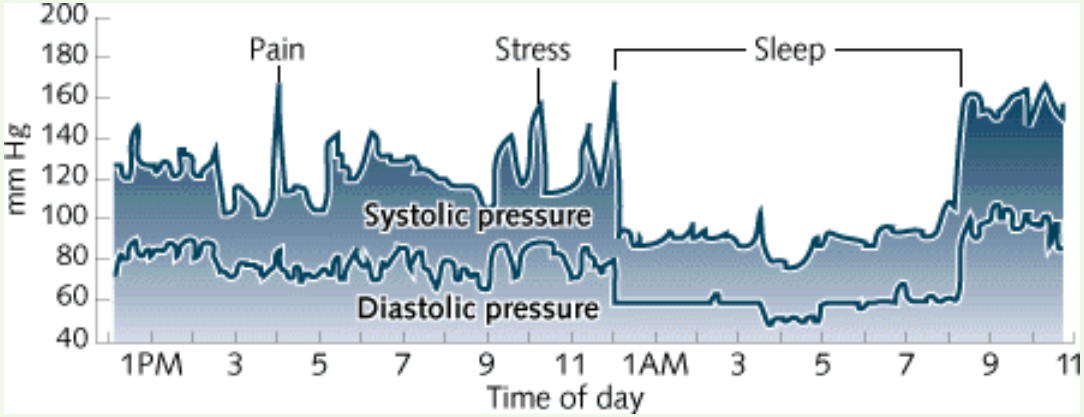
http://sln.fi.edu/biosci2/monitor/inline/cuff.gi

Normal Blood Pressure Range

- Adults.
  - Male 100-150/65-90
  - Female 90-140/55-80

- Children 3-12 years old
  80-135/ 60-80

Watch Video


200
180
160
140
120
100
80
60
40
mm Hg
Pain
Stress
Sleep
Systolic pressure
Diastolic pressure
1PM
3
5
7
9
11
1AM
3
5
7
9
11
Time of day

Review Quiz

1. The area commonly known as the *armpit* is the:

a. Febrile b. Axilla c. Radial

2. *Hypothermia* means:

a. Body temperature above normal

b. Body temperature below normal

3. _____ is the body's temperature in deep structures such as the liver or heart.

a. Pyrexia b. Core body temperature c. Blood

Review Quiz

4. _____ is an abnormally slow heart rate (under 60 beats per minute).

a. Arrhythmia b. Bradycardia c. Tachycardia

5. Uneven intervals between pulse or heartbeats is known as:

a. Tachycardia b. Bradycardia c. Arrhythmia

Review Quiz

6. ***Apnea*** **is:**

a. The absence of breath

b. A respiratory rate that is above the average range determined to be normal for a person's age group

c. A respiratory rate that is below the range determined to be normal for a person's age group

7. When taking a patient's oral temperature with a mercury thermometer the thermometer should remain in the patient's mouth for:

Review Quiz

8. **Normal pulse rates vary due to:**
   a. Sex and age b. Height and weight c. Race

9. **When taking a patient's pulse you should count for how many minutes?**
   a.Two b. One c. Three

10. **The temporal artery is located:**
    a. Side of the neck b. Over the heart c. Front of the ear

Summary

- Given a list of terms related to vital signs and a list of definitions matched each term with its definition.
- Given the steps to measure a patient's temperature identified the correct order of steps to measure a patient's temperature.

Summary

- Given the name of the artery, and its anatomical location, to take a patient's pulse. Identified anatomical locations to take a patient's pulse.

- Given the appropriate steps to measure a patient's respiration identified the correct order of steps to measure a patient's respiration.

Summary

- Given the steps to measure a patient's blood pressure, identified the correct order of steps to measure a patient's blood pressure
- Given the appropriate equipment perform vital signs measurements

Questions